

FC-SCT2010 -Series Current Sense Transformers

Sensed current up to 47 A; Designed for frequency range up to 1 MHz and above. Very low primary DC resistance 500 Vrms, one minute isolation (hipot) between windings

Core material Ferrite

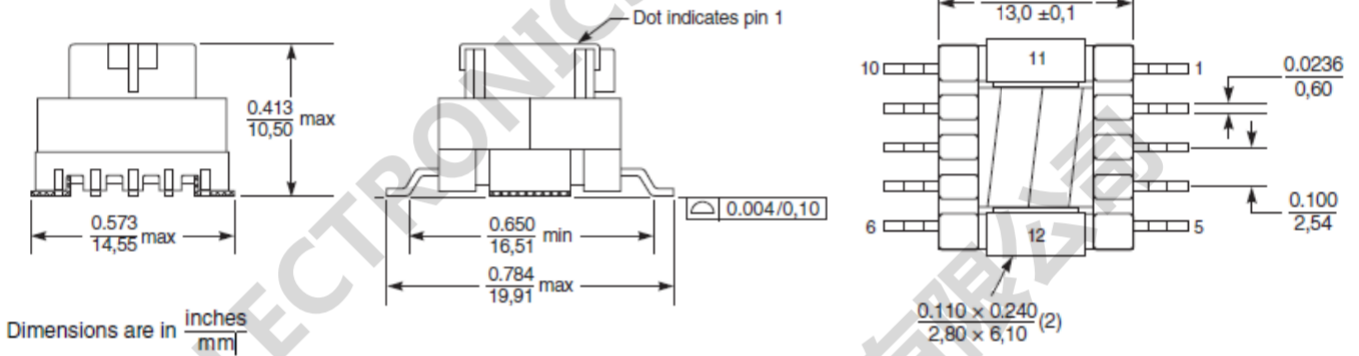
Terminations RoHS compliant tin-silver over tin over nickel over phos bronze (pins 1-10); RoHS compliant matte tin over nickel over copper (pins 11-12)

Ambient temperature -40°C to $+85^{\circ}\text{C}$

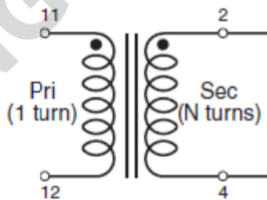
Storage temperature Component: -40°C to $+125^{\circ}\text{C}$



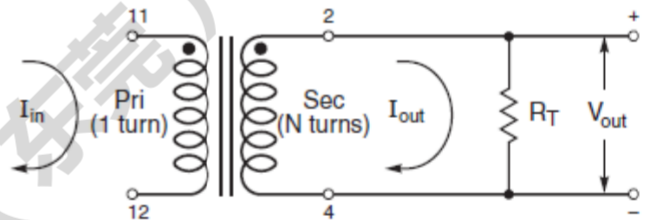
1. Dimensions:mm



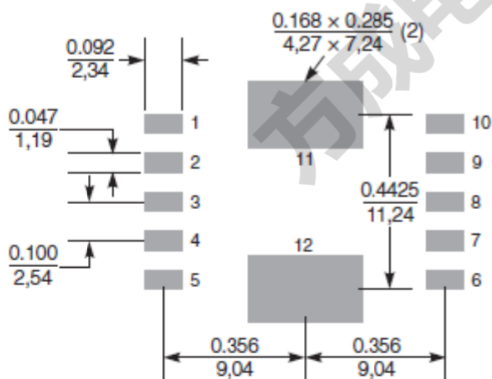
2.Schematic:



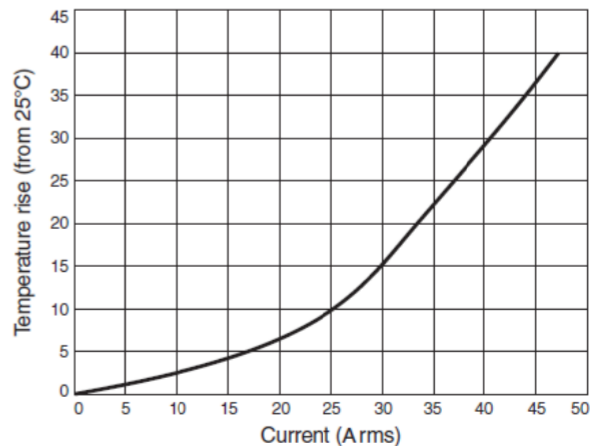
3. Typical Circuit



4. Recommended Land Pattern



Temperature Rise vs Current



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5. ELECTRIC CHARACTERICS)

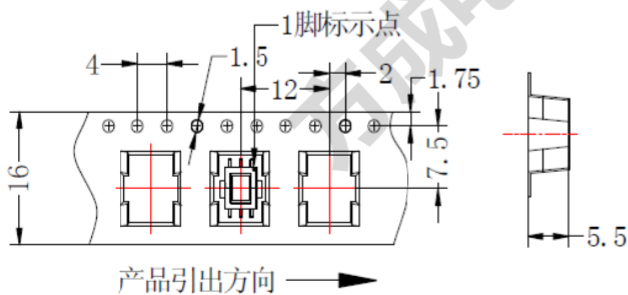
Part Number	Turns Ration	Inductance (±30%.(mH)	Volt-time Product (Vμsec)	DCR (mΩ MAX)		Sensed Current ⁵ I (A)
				Primary	Secondary	
FC-SCT2010-020T	1:20	0.34	50.8	0.36	0.180	47
FC-SCT2010-030T	1:30	0.76	76.2	0.36	0.265	47
FC-SCT2010-040T	1:40	1.36	101.6	0.36	0.560	47
FC-SCT2010-050T	1:50	2.12	127.0	0.36	0.705	47
FC-SCT2010-060T	1:60	3.06	152.4	0.36	0.850	47
FC-SCT2010-070T	1:70	4.16	177.8	0.36	1.00	47
FC-SCT2010-080T	1:80	5.44	203.2	0.36	1.15	47
FC-SCT2010-100T	1:100	8.50	254.2	0.36	1.45	47
FC-SCT2010-125T	1:125	13.3	317.5	0.36	1.85	47
FC-SCT2010-150T	1:150	19.2	381.0	0.36	2.25	47
FC-SCT2010-200T	1:200	34.0	508.0	0.36	4.06	47

Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C.

6. Notes:

1. The temperature of component (ambient temperature plus temper-ature rise) must bewithin the specified operating temperature range.
2. The maximum current rating is based upon temperature rise of the component andrepresents the DC current which will cause a typical temperature rise of 40°C with noairflow.
3. To calculate value of terminating resistor (Rt) use the following formula:
 $R_t (W) = V_{ref} * N / (I_{peak_primary})$
4. The peak flux density of the device must remain below 2000 Gauss. To calculate the peak flux density for uni-polar current use following formula:
 $B_{pk} = 37.59 * V_{ref} * (Duty_Cycle_Max) * 10^5 / (N * Freq_kHz)$ for bi-polar current applications divide Bpk (as calculated above) by 2.

8. PACKAGE AND SEMBLABLE REQUIREMENT



200pcs/R